PATENT
Customer No. 22,852
Attorney Docket No. 06028.0028-00

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Francois COTTARD et al.

Application No.: 10/690,686

Filed: October 21, 2003

For: OXIDATION DYEING COMPOSITION FOR KERATIN FIBERS COMPRISING A CATIONIC POLY(VINYLLACTAM) AND AT LEAST ONE C_{10}-C_{14} FATTY ACID, METHODS AND DEVICES FOR OXIDATION DYEING

Group Art Unit: 1761

Examiner: Elsa B. ELHILO

Confirmation No.: 9761

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313

Sir:

DECLARATION UNDER 37 C.F.R. § 1.132

I, Marie-Pascale AUDOUSSET, do hereby make the following declaration:

1. I am a French citizen, residing at 1, Allée Louis JOUVET, 92600 ASNIERES, FRANCE.

2. I have been awarded a degree in Docterate of Organic Chemistry from the Ecole Nationale Supérieure de Chimie de Paris (E.N.S.C.P.), FRANCE.

3. I have been employed by L'ORÉAL since 1986, and I am presently a Laboratory Supervisor of the Dyes Development Research Laboratories of L'ORÉAL. During my employment at L'ORÉAL, I have been engaged in research and development regarding hair dyeing.

4. I understand the rejections made in the Office Action of May 23, 2005, in Application No. 10/690,696.

5. Given my education and experience, particularly in the area of hair dyeing, I consider myself able to provide the following testimony based on experiments conducted by me or under my supervision:

6. The following compositions were prepared: (quantities expressed in grams)

Dyeing compositions A (according to the invention) and B (comparative)

Ingredients	Comp. A	Comp. B
Natural lauric acid	2.5	-
Oleic acid	-	2.5
Oxyethylenated lauryl alcohol (12 EO)	7.5	7.5
Cetylstearyl alcohol (C16/C18 50/50)	10	10
Glycol distearate	2	2
Oxyethylenated oleocetyl alcohol (30 EO)	3	3
Oxyethylenated decyl alcohol (3 EO)	10	10
Pyrogenic silica with a hydrophobic character	1	1
Pure monoethanolamine	1.2	1.04
Dimethyl diallyl ammonium chloride homopolymer as a 40 % aqueous solution	7	7

Propylene glycol	10	10
Terpolymer of vinylpyrrolidone, dimethyl aminopropylmethacrylamide and lauryldimethylpropyl-methacrylamidoammonium chloride (74/15/11)	4	4
Crosslinked polyacrylic acid	0.4	0.4
Diethylenetriaminepentaacetic acid, pentasodium salt as a 40 % aqueous solution	2	2
Ammonium thiolactate as a 58 % aqueous solution (50 % as thiolactic acid)	0.8	0.8
Mono-tert-butylhydroquinone	0.3	0.3
1,4-diaminobenzene	0.24	0.24
1-hydroxy-4-aminobenzene	0.44	0.44
1-hydroxy-2-aminobenzene	0.028	0.028
1,3-dihydroxybenzene (resorcinol)	0.192	0.192
1-hydroxy-3-aminobenzene	0.019	0.019
1-methyl-2-hydroxy-4-betahydroxyethylamino-benzene	0.021	0.021
2-methyl-1,3-dihydroxybenzene (2-methylresorcinol)	0.055	0.055
Aqueous ammonia (at 20 % of ammonia)	10	10
Perfume	0.5	0.5
Deionized water (qs)	26.805	26.965

The polymer according to the present disclosure is a terpolymer of vinylpyrrolidone/ dimethyl aminopropylmethacrylamide /lauryldimethylpropyl-methacrylamidoammonium chloride provided by the company ISP under the reference POLYMER ACP-1234.

Oxidizing composition

CETEARYL ALCOHOL (and) CETEARETH-25	2.85 g
TRIDECETH-2 CARBOXAMIDE MEA	0.85 g A.M.

Glycerin	0.5g
Hydrogen peroxide as a 50% solution in water	12 g
PENTASODIUM PENTETATE	0.15g
Sodium stannate 6H20	0.04 g
TETRASODIUM PYROPHOSPHATE	0.02 g
Deionized water	qs

7. Each dyeing composition was mixed, at the time of use, in a plastic bowl for 2 minutes, with the oxidizing compositions given above, in an amount of 1 part of dyeing composition per 1.5 part of oxidizing composition.

8. Forty seconds after mixing, the mixture containing composition A according to the application was homogeneous and creamy whereas composition B was getting lumpy.

9. The viscosities of compositions A, B and that of the oxidizing composition were measured using a Rheomat 180 Mettler, 25°C, 200 rd/mn, with module 2 or 4 according to the viscosity.

	viscosity	cp
Composition A	28 ud (modulus 4)	6600
Composition B	64 ud (modulus 4)	15400
Oxidizing composition	34 ud (modulus 2)	170

10. According to these results, the difference between the viscosities of the oxidizing composition and of composition B is greater than the difference between the viscosities of the oxidizing composition and of composition A, indicating that the ease of mixing the oxidizing composition with composition A is much easier.

COLOR DETERMINATION

11. Each of the resulting mixtures was then applied onto locks of natural of permed hair containing 90% white hair. After 30 minutes, the hair was then rinsed with water, washed with a standard shampoo, rinsed again, and dried.

12. The color of the compositions on natural and permed hair were measured according to the L*a*b* system using a Data Color SF 600 X spectrophotometer.

13. According to this system, L indicates the lightness. The chromaticity coordinates are expressed by the parameters a* and b*; a* indicates the axis of red/green shades and b* indicates the axis of yellow/blue shades.

14. The color was evaluated by the selectivity according to the following formula:

$$\Delta E = \sqrt{(L^* - L_0^*)^2 + (a^* - a_0^*)^2 + (b^* - b_0^*)^2}$$

wherein values L*, a* and b* correspond to the permed hair and the L_0^*, a_0^* and b_0^* correspond to the natural hair.

15. The selectivity of the coloration is the variation of the color between natural colored hair and permed colored hair. Natural hair is representative of the nature of the hair at the root of the hair and the permed hair is representative of the

nature of the hair at the end. .The less selective the coloration, the higher the color quality. A lesser selectivity is representative of a more homogeneous color along the fibres.

16. The selectivity of the hair dyed with the composition of the invention was 2.8 whereas the selectivity of the hair dyed with the comparative composition was 4.8. According to this result, it can be expected that the color would be more uniform along the fibers with composition A of the invention.

17. I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and further, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Dated: December 13, 2005

By: Marie-Pascale Audousset
Marie-Pascale AUDOUSSET